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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/873,976	06/01/2001	Anthony J. Cooper	508-039.7-1	3295
4955	7590	11/12/2004	EXAMINER	
WARE FRESSOLA VAN DER SLUYS & ADOLPHSON, LLP BRADFORD GREEN BUILDING 5 755 MAIN STREET, P O BOX 224 MONROE, CT 06468			TRAN, THANH Y	
			ART UNIT	PAPER NUMBER
			2822	

DATE MAILED: 11/12/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/873,976

Applicant(s)

COOPER ET AL.

Examiner

Thanh Y. Tran

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 23 August 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-86 is/are pending in the application.
- 4a) Of the above claim(s) 1-52 and 57-86 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 53-56 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☒ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 8/8/02.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

1. Applicant's election with traverse of group I, claims 53-56, filed on 8/23/04 is acknowledged. Applicant states that the only independent method claim 27 uses the word "forming" with respect to the making of the grooves. Therefore the method claim does not restrict such forming to laser cutting. However, this is not found persuasive because the inventions are classified in different classes and there are divergent subject matters and the search for an electronic component to have an electrical component incorporated thereon in group I (for example: claim 53) is not required the same search in group II (for example: claim 27). Method claim 27 in group II related a method of providing emitter lines in a field emission device for a visual display having *an emission layer on a front face of the substrate, the emission layer having a multiplicity of emitters and gates arranged as an array of emission pixels* which was not found from independent claim 53 in group I. It should be noted that: claims 57-59 are not considered in group I because they are depended from claim 52 not claim 53.

The requirement is still deemed proper and is therefore made FINAL.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claim 53 is rejected under 35 U.S.C. 102(b) as being anticipated by Chong et al (U.S. 5,699,613).

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As to claim 53, Chong discloses in figures 6-9 an electronic component to have an electrical component (43) incorporated thereon, the electronic component comprising: a substrate having at least a front substrate layer (33) for receiving the electrical component (43) and conductive vias (38) provided through the substrate or at least a front layer thereof to electrical connection to the electrical component (43) characterized in that the electrical component (43) further comprising: grooves (as indicated at 24, 26, 27 in figure 6) provided in the front surface of the substrate, the conductive lines (34, Fig. 7) being formed in the grooves (24, 26, 27) for electrical connection to the electrical component (43).

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 54-56 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chong et al (U.S. 5,699,613) in view of Berkely et al (U.S. 6,031,729).

As to claims 54, 55, and 56 Chong does not disclose the front substrate layer is ceramic and the grooves are formed by serration of a tape-casing, doctor blade or laser cutting. However, Berkely discloses in figure 4 a ceramic substrate having a front substrate layer (33). Therefore, it would have been obvious to a person having ordinary skill in the art at the time the invention was made to modify the component of Chong by using a ceramic material for a front layer of the substrate as taught by Berkely. One of ordinary skill in the art would have been motivated

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because ceramic material is a high temperature material and could be used for supporting the chip component mounted on the substrate. The limitations of “the grooves are formed by serration of a tape-casing, doctor blade” in claim 54, “the grooves are formed by laser cutting” in claim 55, and “the grooves are formed by chemical etching” in claim 56 are process limitations in the product claims, which product does not otherwise patentably distinguish over prior art, cannot impart patentability to the product. In re Stephens 145 USPQ 656 (CCPA 1965).

Conclusion

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Lin et al (U.S. 6,534,852), Kabumoto et al (U.S. 6,483,714), Kato et al (U.S. 5,394,490), Averkiou et al, Yoshimura et al (U.S. 2002/0028045), Saito et al (U.S. 6,452,328), Cook et al (U.S. 5,652,811), Yoshimura et al (U.S. 6,706,546), Kinoshita (U.S. 6,127,633), and Asai et al (U.S. 6,392,898) disclose relevant prior arts to the invention.

Contact Information

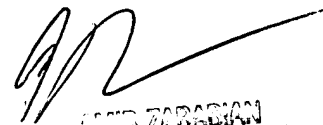
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thanh Y. Tran whose telephone number is (571) 272-2110. The examiner can normally be reached on M-F (9-6:30pm).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Amir Zarabian can be reached on (571) 272-1852. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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